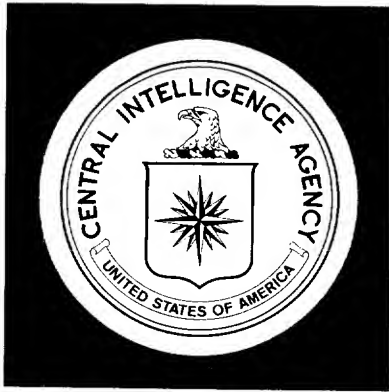


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*USSR: Current Status of the
1976 Grain Crop*

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Environment Analysis Brief

USSR: Status of the 1976 Grain Crop

Summary

Soviet grain production is currently estimated at 195 million metric tons if normal weather prevails during the balance of the growing and harvesting season. However, optimum weather conditions could lead to an output as high as 215 million tons. The higher end of the range can only be realized in the unlikely event that ideal weather prevails over major grain production regions, particularly in the New Lands of Kazakhstan and western Siberia, traditionally high-risk zones of agriculture.

Conditions in the winter grain belt—centered in European Russia—continue to remain favorable for the growth and development of fall-sown grains. As a result, we have not changed our earlier estimate of 45 million metric tons of winter grains.

Prospects for spring grain production have improved considerably since early June. In European USSR, above average precipitation and cool temperatures, favorable to the growth and development of spring grains, have continued. As a result, relatively high yields of spring grains appear likely west of the Urals. East of the Urals, early June rains have alleviated much of the early season dryness in the important spring grain regions of Northern Kazakhstan and West Siberia. However, low soil moisture conditions still persist in parts of Kazakhstan and the Southern Urals as of the last date of information (15 June).

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Status of Winter Grains

Last autumn's low soil moisture and this year's early season winterkill resulted in an estimated loss of 11 to 12 million hectares of winter grains, nearly a third of the fall-sown area. Much of the surviving winter grain acreage contains thin and spotty stands of plants, indicating below normal yields. Winter grain production from the surviving 26 million hectares of fall-sown grains is estimated to be no more than 45 million metric tons, 3.5 million tons less than last year's poor harvest.

By mid-June, selective harvesting of winter grains, primarily winter barley, had begun in Central Asia, the Transcaucasus, and the Southern Ukraine. Harvesting in the major winter wheat area of European USSR will begin in volume in early July. Continuation of the recent wet weather in northern European Russia could create serious harvest delays and promote above average weed growth, lodging and rust fungus.*

Note: The Environment Analysis Staff (EAS) of the Office of Geographic and Cartographic Research is responsible for forecasting Soviet grain production. The EAS staff will publish regular crop assessments and estimates. All estimates are derived in accordance with agronomic principles emphasizing convergence of evidence.

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* Soviet crop disease forecasts indicate that there is increased probability of leaf rust in the northern Kazakhstan spring wheat area this year. The incidence of leaf rust or fungus in spring and winter wheat in the non-Black soil zone of European Russia will also probably be higher than usual. This early projection presumes wet weather conditions in June and July favorable to disease development. Under these conditions, losses to wheat rust could reduce the 1976 Soviet wheat crop by as much as 10 million tons, twice the normal loss.

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USSR: Major Grain Growing Regions



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Status of Spring Grains

Spring grain production is estimated at a record 170 million metric tons if optimum growing and harvesting conditions prevail between mid-June and late September.* On the other hand, in the more likely event normal conditions develop, this production would be reduced to 150 million metric tons.

In most areas of the USSR this year, the sowing of spring grains began near the long-term average although approximately ten days later than in 1975. With the exception of most of northern European Russia where wet weather delayed sowing operations, favorable weather conditions in late April and May allowed field work to progress rapidly. As of early June, sowing was completed throughout the USSR with the spring wheat and corn sowing plans reportedly overfulfilled. The total area sown to spring grains, including corn, is estimated at a record 104 million hectares (see Table 1).

Table 1

USSR: Harvested Area

	Million Hectares	
	Average 1973-75	Estimated 1976
Total	127	130
Winter Grains	28.5	26 ¹
Spring Grains	98.5	104 ²

¹ Reflects an estimated 9.5 million hectares of winterkill plus an allowance of approximately 2 million hectares for use as green chop and spring pasture out of a total sown acreage of 37.5 million hectares.

² Estimated sown acreage. Much of the land used to expand the spring grain area will undoubtedly be marginal. Some abandonment may take place.

* In addition to wheat, barley, oats, and pulses, spring grains include corn, sorghum, buckwheat, and millet. The latter are normally referred to as "summer grains." Spring grains normally account for approximately three-fourths of the sown grain area and about two-thirds of total grain production.

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Improved crop conditions in early June over most of the spring grain area east of the Urals, together with unusually favorable conditions for spring grains in the European USSR, have brightened prospects for the total 1976 Soviet grain production. In northern European Russia, cool temperatures and above average precipitation throughout the spring have been favorable for the growth and development of spring grains. Moisture reserves in southern European Russia are near normal and crop development is reportedly good. Barring any unusually high incidences of plant disease or weed infestation, above average prospects for spring grain yields and production are likely throughout most of European Russia.

April and May weather conditions in Northern Kazakhstan and other areas east of the Urals were in sharp contrast to those of European Russia. Although average temperatures and below normal precipitation existed in these areas since early spring, recent LANDSAT imagery suggests soil moisture problems in many of the areas are not as critical or widespread as initial weather data had indicated. Rainfall in mid-June has brought temporary relief to some major growing regions. However, because of the unevenness of this precipitation, soil moisture reserves remain seriously low in parts of the southern Urals and north-central Kazakhstan. Precipitation in June and July will be decisive in determining overall production in these areas.

Total Grain Production

With 45 million tons of winter grains and a *maximum* spring grain harvest of 170 million tons, total Soviet grain production could be as high as 215 million metric tons, 75 million tons more than last year's poor harvest and 34 million tons above the 1971-75 average (see Table 2). However, if *normal weather conditions* prevail during the balance

Table 2

USSR: Production of Grain¹

	Million Metric Ton						
	Annual Average 1966-70	1971	1972	1973	1974	1975	Preliminary Maximum 1976
Total	167.6	181.2	168.2	222.5	195.6	139.9	215
Winter Grains ²	50.8	63.0	40.6	63.5	62.5	48.6	45
Spring Grains ³	116.7	118.2	127.6	159.0	133.1	91.2	170

¹ Because of rounding, components may not add to the totals shown.

² Includes wheat, rye, and barley

³ Includes wheat, barley, oats, corn, pulses, and miscellaneous grains.

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of the season, we estimate that output will be 20 million tons less—195 million tons.

A harvest of 195 million tons would be less than the Soviet production plan of 205-210 million tons for 1976 and considerably below the average annual production of 215-220 million tons called for in the 1976-80 plan.

Production of 215 million tons, the maximum potential, is dependent upon optimum weather conditions prevailing over the major spring grain areas of Kazakhstan and Western Siberia, traditionally high-risk zones of agriculture.* Within the next month, spring grains east of the Urals will have entered the heading stage, a crucial period of development. Unless low moisture areas receive adequate rainfall by then, yields will be reduced accordingly. In addition, unusually high incidences of plant disease and above average weed growth could further reduce potential yields.

* The EAS crop monitoring system is based on a reduction of potential production as yield limiting events occur. Crop production is projected from short range weather forecasts and the assumption of subsequent optimum weather conditions.

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